# AGRICULTURAL & APPLIED ECONOMICS 2009 ACADEMIC PLAN

## I. MISSION STATEMENT AND GOALS

The University of Wyoming's Department of Agricultural and Applied Economics is nationally recognized for teaching, research, and outreach focused on economic decision-making principles applied to agricultural and other natural resource-based businesses and community development.

- Goal 1: The Department is nationally recognized for agricultural and applied economics research.
- Goal 2: Promote nationally recognized excellence in undergraduate education. Promote nationally recognized excellence in graduate education. Promote nationally recognized instructors/teaching resources (AAEA,WAEA, USDA, etc...).
- Goal 3: Department is nationally recognized for Extension.
- Goal 4: Become Wyoming's premier source for economic information and analysis of agricultural, natural resource and community economic development issues
- Goal 5: Enhance and develop relationships with diverse clientele, students and donors to meet present and future issues as they develop.

# II. PREVIOUS PLANNING ACCOMPLISHMENTS

Curriculum change for undergraduate and graduate programs	<ul> <li>Re-designed the curriculum in both programs. Added key faculty to cover courses that we needed. Added an under graduate minor in Environment and Natural Resources</li> <li>Revised the Graduate Program to provide transparency in skill development</li> <li>Added a Graduate Minor in Applied Economics</li> </ul>
CSREES Review and Follow-up	<ul> <li>Conducted a outside review of our program through CSREES</li> <li>Internalized the recommendations as part of our ongoing planning and review process.</li> </ul>
Experimental Economics Laboratory	The laboratory is currently fully functional and heavily used.
Extension Program	<ul> <li>Part of multi-state group that developed and operates an award winning extension program in Risk Management that has been used considerably across the Rocky Mountain West.</li> <li>Part of the State Extension group that developed the small acreage landowner educational program, which includes Barnyards and Backyards.</li> <li>Participated in development of an innovative program in community leadership extension education, developing locally run community leadership institutes (EVOLVE Extension program).</li> <li>Developed nationally known capacity in local government fiscal impact analysis.</li> <li>Developed the primary economic impact analysis tool for BLM District Resource Management Planning in Wyoming.</li> </ul>

	students.
	<ul> <li>Developing a set of broad based program assessment tools.</li> </ul>
Enhanced work in the Area of ENR	<ul> <li>Public land policy: Forest Plan Development (Shoshone National Forest and Bridger Teton National Forest) BLM RMP Assistance,</li> <li>Expanding research and extension in the area of the economics of wildlife and agriculture.</li> <li>The major supplier of teaching and outreach for SENR and IENR</li> <li>Produced several public reports on federal land use policy and agriculture for State policy makers.</li> <li>Primary supplier of economic impact analysis for gas</li> </ul>
	development in the State of Wyoming.
Increased grant funding	<ul> <li>2.5 fold expansion in grant funding since 2003</li> <li>3.2 fold expansion in non-state funding since 2003</li> </ul>
Faculty positions	<ul> <li>Wildlife Economics capability with two faculty hires</li> <li>Recent faculty hire for agricultural production economics and productivity analysis</li> <li>Joint position with SAREC</li> <li>Authorization to hire an Excellence Chair in Community Development</li> <li>Authorization to hire a water resource economist with a substantial extension appointment</li> </ul>

## III. RELEVANT INSTITUTIONAL ISSUES

The economy of the Rocky Mountain West is a study in contrasts. While the national unemployment rate is hovering around 5.5 percent the State unemployment rate is around three percent, with only Big Horn County approaching the national average at a distant 4.2 percent. The current energy boom is creating job shortages and tax revenue surpluses in many parts of the State, while counties that are not experiencing energy extraction pressures have flat or declining economic growth. Tourism continues to grow in importance while agriculture tends to fluctuate depending upon commodity prices. On the negative side increasing fuel costs resulting from the energy boom can have negative effects that impact communities and businesses across the state. The ongoing drought is also affecting agriculture, water and wildlife-related industries, and communities in general.

Other issues include endangered species protection, sustainable agriculture, mineral development, public land policy issues and national agricultural policies. These issues are a result of national economic policies that manifest themselves locally. National groups on both sides of these issues can enter into the local/regional debates. The Agricultural and Applied Economics Department plays a role in all these issue facing the Mountain West and beyond, today informing policy debates among the public, students, and peers.

As the University and the College of Agriculture move into the next planning cycle, the Department of Agricultural and Applied Economics can leverage its considerable connections in the State and USDA to advance the University's and the Department's mission. There continues to be opportunities for the Department in the areas of agriculture, agribusiness, agricultural policy, community economic development, energy development, and environment and natural resources. The department's mission is to provide a nationally recognized, regionally prominent teaching, research and extension programs in applied economics that address the challenges of agricultural business economics, community economic development and natural resources. The unit has 13 faculty and 3 academic professionals working primarily in several program areas: Agricultural business economics and enterprise management, management of environmental and natural resources, State and Federal government policy analysis,

economics of human nutrition and household food consumption decisions, natural resource and energy economics, and small business and community economic development.

Degree offerings include a strong undergraduate major (approximately 125 majors annual average) in Agricultural Business Economics with three options: Agribusiness, Farm and Ranch Management, and International Agriculture. Agribusiness continues to be our largest draw among undergraduate students. Students complete our program with a significant background in economics applied to one of the options. Finally as part of the undergraduate program we provide an agribusiness minor and an ENR minor for students pursuing studies on other disciplines. Additionally, many of our courses are service courses for other programs in the College and across campus. We also offer a Master's of Science program (6 to10 majors annual average) in Agricultural and Applied Economics. Our MS program cooperates closely with the Haub School for the Environment and Natural Resources (SENR) and International Studies. Department faculty have regularly led or assisted interdisciplinary course offerings both programs. Finally, we recently implemented a Graduate Minor in Applied Economics to assist graduate students in other programs that are working on projects with a substantial multi-disciplinary component that involves economic decision-making.

Recent faculty hires in the department have filled many of the key gaps in applied economics at the University. The Agricultural and Applied Economics Department is an important player in two areas of distinction (Environmental and Natural Resources; and Professions and Issues Critical to the Region) in previous planning efforts.

Planned action items will strengthen degree programs, research productivity, extension education and collaboration with other units within the College of Agriculture and across campus. Key components of the Department plan presented below are to streamline the undergraduate agricultural business curriculum, strengthen graduate student recruitment, increase external funding and maintain strong ties to Cooperative Extension, SENR and IENR. The Department is working closely with the new School of Energy Resources in leveraging its expertise in areas related to energy development and reclamation, as well as bridging gaps between SER and IENR and the College of Agriculture.

## IV. ACTION ITEMS

The following summary summarizes action items that the faculty are currently involved in that are either continuations of the previous plan or are new initiatives and programs that have been developed since the previous plan. The Department's action items are categorized based upon the Moving Forward Areas of Distinction. Agricultural and Applied Economics will continue to enhance the previous plan's *Areas of Distinction, Professions Critical to the Region and Environment and Natural Resources*.

# A. Professions and Issues Critical to the Region

The previous academic plan identified a need to provide research, education and training for professions in the State's rural communities, in areas that range from energy production to agriculture and business development; from health care to legal services; and from teacher training to leadership development. Our own work provides some of the necessary components that are needed in rural communities.

- 1. Agricultural and Applied Economics will continue to be a leader in providing extension/outreach service in small business finance and development, community economic development, production agriculture, and other natural resource-based enterprises following recommendations from the CSREES review in 2006.
- 2. The new M.S. in Agricultural Economics, Community and Economic Development Option fills an important professional niche.
- 3. Continuing development of future professionals and existing professionals that have skills in mediation and interest based negotiation techniques.
- 4. Continue with the award winning extension program on Agricultural Risk Management Education.

#### NEW INITIATIVES SINCE THE LAST PLAN

- 5. Enhance the use of the Experimental Economics Laboratory on testing USDA farm policy proposals and other federal and state agency policy ideas (e.g. DOE).
- 6. Enhance research on the economics of food choices and nutrition decisions in families with obesity issues to a broad-based initiative to study household health and finance decision-making.
- 7. The Department is experienced in conducting applied multidisciplinary research in the College of Agriculture could be capitalized upon in fulfilling the broad missions of SENR and IENR. Our new hire at the Sustainable Agriculture Research and Extension Center (SAREC) will be working in systems based research and extension.
- 8. Expand work with SER on value-added coal production, oil and gas, and other mineral development impacts.
- 9. Expand work in economics of energy development reclamation looking at both regulatory structural issues and ecosystem service valuation changes.

# B. ENVIRONMENT AND NATURAL RESOURCES

ENR is emphasized in Action Item 5 and 6 as an opportunity for departments in every college to focus on and to collaborate on interdisciplinary research and educational programs. Our work under this Area of Distinction has been considerable.

- 1. A majority of faculty and academic professionals conduct research related to environmental and natural resources issues (land-use and open-space management, agricultural production systems performance, public land management, valuation of fisheries and wildlife habitat, analysis of endangered species recovery plans.) The Department will continue to focus research and extension efforts to bolster the ENR Area of Distinction.
- 2. Strong research reputation for conducting quality research on the expected social and economic consequences of alternative environmental and natural resource policies, particularly at the local and regional levels.
- 3. The Department has a strong record of teaching, research and extension education contributions to SENR and IENR and will continue to support these programs. The Department will also look for ways to contribute to the applied economics part of the new SER curriculum.
- 4. Agricultural and Applied Economics will participate in developing and offering a new interdisciplinary Ph.D. program in environmental and natural resource management should SENR receive administrative and academic support for such a program.
- 5. Department provides part of undergraduate preparation in law along with economics to prepare students for law school with a background in economics. The Department will pursue a law and economics undergraduate emphasis.

#### NEW ACTION ITEMS SINCE THE LAST PLAN

- 6. Lead and assist in efforts to evaluate impacts and feasibility of IGCC technology
- 7. Continue work on issues surrounding land use implications on local government fiscal structure and wildlife impacts.
- 8. Lead efforts to evaluate the economics of reclamation issues in oil and gas field development.
- 9. Invited participation on reviewing national procedures for conducting economic impact analysis on federal land management changes.
- 10. Assist in efforts to inform policy makers on wildlife disease issues that are connected with domestic livestock as a broad-based risk management program for producers and other natural resource based businesses.
- 11. Re-focus some courses to included energy development issues. Specifically our Natural Resource Planning Economics course, Community Development, and Community Economics have been or will all be re-focused on issues related to energy development as a way to teach the concepts.

#### C. OTHER ACTION ITEMS

1. Advanced Policy Studies Graduate program and PhD. The Department will begin formal marketing of the Graduate Minor in Applied Economics this year. The Department is proposing two alternative program structures: (1) Graduate program in Advanced Policy Studies in Agriculture and Natural Resources, and (2) PhD program in Applied Economics. The program in Advanced Policy studies is designed to refine the concept of an interdisciplinary PhD program. The student would major in a physical science and minor in a social science or policy discipline or vice versa, major in a social science and minor in a physical science. This would allow the student to have a core discipline focus needed to be attractive to academic programs at other institutions yet have a sufficient foundation in understanding the complementary relationships between science and social policy.

The PhD program will be designed to be complementary with the Economics and Finance PhD program. The program of study can be seen as a stand-alone program or a combined program with the Economics and Finance PhD program. A portion of the courses Economics and Finance offer would be offered in this program. Both proposals are designed to complement the current undergraduate and MS program rather than substitute the programs. Success of either advanced graduate program will be conditional upon maintaining success of both the undergraduate and MS programs.

- 2. Explore possibilities for more personal enhanced recruiting and marketing of our undergraduate program as detailed in our recently completed marketing study.
- 3. Explore possibilities for more personal and enhanced recruiting and marketing of our graduate program.
- 4. Create a set of program assessment tools to evaluate the current undergraduate and graduate programs.
- 5. Contribute courses to the Bachelor of Applied Sciences through distance education.

# V. IMPLEMENTATION

Much of the action items listed above are continuing initiatives that existed before and during the last plan and will exist into the next plan and are a core part of what the faculty here accomplish professionally. So implementation is already occurring and will continue as long as faculty, students, and clientele see benefits to the work. Those benefits will be measured in terms of academic product (publications, educational programs, etc.) returning clientele, and student interest. The newer initiatives have re-defined some of the faculty's plan of work in a significant way (e.g. Risk Management Education, value-added coal development, and family and consumer nutrition decision making.) Others conform well to existing plans of work and departmental goals. The implementation summary will identify timeframes for those action items that have specific tasks with specific, identified products. Other action items are simply ongoing activities. Much of our implementation will follow the Department's Tenure and Promotion Guidelines developed in 2004 with annual performance assessments used as a metric. Once a year the Department will meet in an annual retreat to re-evaluate action items and implementation strategies.

## PROFESSIONS AND ISSUES CRITICAL TO THE REGION

- **A-1.** Ongoing effort with considerable product already achieved and will look for ways to reach non-traditional clientele.
- **A-2.** Community Development Option in MS program: The loss of instructional faculty for the Community Development Option will be filled by the endowed chair appointment in 2009. Student interest will be assessed after five years of re-filling our instructional faculty.

**A-3**. Ongoing effort. The close relationship between the Agricultural and Natural Resource Mediation Board will continue to generate interest in training. As part of the effort towards providing distance education capability, we will be looking at the potential to provide some ADR through non-traditional means. 2009/2010 for planning and evaluation. See C-5.

**A-4 through A-9**. Ongoing timeframe.

## **ENVIRONMENT AND NATURAL RESOURCES**

- **B-1 through 4**. Ongoing timeframe.
- B-5. Initiate discussion with the College of Law. 20010/2011
- **B-6, 9**. Coordinate efforts to evaluate the economics of value-added coal technology between efforts on campus, Idaho National Labs, and the Business Council. 1year timeframe for several projects, with a multi-year time frame for spin offs.
- **B**-7. Ongoing timeframe.
- **B-8**. Start a series of long term research programs looking at economic issues surrounding oil and gas reclamation. Ongoing timeframe.
- **B-10**. Continue the extension efforts and research capacity on managing risk and uncertainty in natural resource based businesses. This is an ongoing time frame that will be a function of state and federal grant funding.
- **B-11**. Natural Resource Planning Economics has been focused in part on energy issues for several years. Community economics will present a re-focused curriculum Fall 2009 on the economics of energy development. Community Development will be re-focused the next year towards energy topics in 2011.

#### **OTHER ACTION ITEMS**

- **C-1 and 2**. Set up a marketing plan 2009/2010 and implement 2010 2011.
- **C-4**. Assessment plan tested and functional by 2009/10.
- **C-5**. Develop distance education to the BAS and others by starting training in 2009/2010 with potential courses set for 2010/2011 academic year.